

Serial No. 09/537,654
Group Art Unit: 1638

Please amend claims 2, 4, 8, 9, 12, 14 and 15 as follows:

- ca* 2. (Twice Amended) A recombinant expression cassette comprising the polynucleotide of claim 12 operably linked to a promoter.
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- c3* 4. (Amended) A transgenic plant comprising the recombinant expression cassette of claim 2.
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- c4* 8. (Amended) A transgenic seed from the transgenic plant of claim 4, wherein the seed comprises the recombinant expression cassette.
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- SD17*
cb 9. (Twice Amended) A method of modulating the level of RAD51C in a plant, comprising:
- (a) introducing into a plant cell a recombinant expression cassette comprising the polynucleotide of claim 12 operably linked to a promoter;
 - (b) culturing the plant cell under plant cell growing conditions;
 - (c) regenerating a whole plant which possesses the transformed genotype; and
 - (d) inducing expression of said polynucleotide for a time sufficient to modulate the level of RAD51C in said plant.
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- SD17*
cb 12. (Amended) An isolated polynucleotide selected from the group consisting of:
- (a) a nucleic acid sequence having at least 90% sequence identity over the entire length of SEQ ID NO: 1, as determined by the GAP program under default parameters, wherein said sequence encodes a polypeptide which participates in a complex which enhances recombinase activity; and

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- (b) a nucleic acid sequence which is fully complementary to the nucleic acid sequence of (a).

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(Amended) An isolated polynucleotide comprising a nucleic acid sequence which selectively hybridizes to the full-length complement of SEQ ID NO: 1 under stringent hybridization conditions and a wash in 0.1X SSC at 60°C, wherein stringent hybridization conditions comprise 50% formamide, 1M NaCl, and 1% SDS at 37°C, and wherein the sequence encodes a polypeptide which participates in a complex which enhances recombinase activity.

15. (Amended) An isolated polynucleotide comprising at least 50 contiguous nucleotides from the polynucleotide of SEQ ID NO: 1.

Please add new claims 16-35 as follows:

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- 16. The isolated polynucleotide of claim 12, wherein the nucleic acid sequence of (a) has at least 95% sequence identity to SEQ ID NO: 1.
17. The isolated polynucleotide of claim 12, wherein the polynucleotide is SEQ ID NO: 1.
18. A recombinant expression cassette comprising the polynucleotide of claim 14 operably linked to a promoter.
19. A host cell comprising the recombinant expression cassette of claim 18.
20. A transgenic plant comprising the recombinant expression cassette of claim 18.

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21. The transgenic plant of claim 20, wherein said plant is a monocot.
22. The transgenic plant of claim 20, wherein said plant is a dicot.
23. The transgenic plant of claim 20, wherein said plant is selected from the group consisting of maize, soybean, sunflower, sorghum, canola, wheat, alfalfa, cotton, rice, barley, and millet.
24. A transgenic seed from the plant of claim 20, wherein the seed comprises the recombinant expression cassette.

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25. An isolated polynucleotide comprising a member selected from the group consisting of:
- (a) a nucleic acid sequence encoding a polypeptide having at least 90% sequence identity over the entire length of SEQ ID NO: 2, as determined by the GAP algorithm under default parameters, wherein the encoded polypeptide participates in a complex which enhances recombinase activity; and
 - (b) a nucleic acid sequence which is fully complementary to the nucleic acid sequence of (a).

26. The isolated polynucleotide of claim 25, wherein the nucleic acid sequence of (a) encodes a polypeptide having at least 95% sequence identity to SEQ ID NO: 2.
27. The isolated polynucleotide of claim 25, wherein the nucleic acid sequence of (a) encodes the polypeptide of SEQ ID NO: 2.

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28. A recombinant expression cassette comprising the polynucleotide of claim 25 operably linked to a promoter.
29. A host cell comprising the recombinant expression cassette of claim 28.
30. A transgenic plant comprising the recombinant expression cassette of claim 28.
31. The transgenic plant of claim 30, wherein said plant is a monocot.
32. The transgenic plant of claim 30, wherein said plant is a dicot.
33. The transgenic plant of claim 30, wherein said plant is selected from the group consisting of maize, soybean, sunflower, sorghum, canola, wheat, alfalfa, cotton, rice, barley, and millet.
34. A transgenic seed from the plant of claim 30, wherein the seed comprises the recombinant expression cassette.
35. An isolated polynucleotide comprising a nucleic acid sequence which encodes at least 25 contiguous amino acids of SEQ ID NO: 2.--